



# SCIENCE PROGRAM BRIEFING: What the DOE scientists are reporting!

## Kōmlele ko Ikijjen Science Program eo: Ta eo scientist ro rej kwalok!

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Resource Potential of Copra Harvested from Nuclear Affected Atolls in the Marshall Islands.  
Hamilton et al. LLNL-JRNL-73858

LLNL-JRNL-73858

**Resource Potential of Copra Harvested  
from Nuclear Affected Atolls in the  
Marshall Islands**

Terry F. Hamilton  
Steven R. Kehl  
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(prepared for submission Atoll Resource Bulletin)

Hamilton et al., Uptake of <sup>137</sup>Cs by leafy green vegetables, root and grain crops in a newly established garden setting on Utrök Atoll, Republic of the Marshall Islands, LLNL-JRNL-665900

LLNL-JRNL-665900

**Uptake of <sup>137</sup>Cs by leafy green vegetables, root  
and grain crops in a newly established garden  
setting on Utrök Atoll, Republic of the Marshall  
Islands**

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**For submission - Journal of Environmental  
Radioactivity**

# Executive Summary : Utrōk Garden Experiment

## Ilo Tu Kadu In: Atake In Ekkatak Ilo Utrōk

(abbreviated and simplified to aid understanding) (Kōkadudu im kabidodoik ñan jibañ kōmeleliki)

1. Many different types of healthy garden vegetables and fruits like Chinese cabbage, tomato, corn and pumpkin can be grown in the Marshall Islands using good farming practices.

Elōñ kain bejtabol(vegetables) in atōke ko im kein ikkan ko remman ñan ājmour einwōt Chinese cabbage, tomato, corn im bañke remaroñ eddōk ilo Majōl in ñe jenaj kōjerbal wāwen ekkat ko rejijet im emman.

2. Garden vegetables and fruits growing on Utrōk do contain a small amount of radioactive cesium that is taken up from the soil. The level of radioactive cesium in food plants is higher than what you would expect to see in the United States or Europe.

Bejtabol im kain ikkan ko rej eddōk ilo aelōñ in Utrōk ewōr jidrik radioactive cesium rej bōk jen būdrej eo. Joñan radioactive cesium eo ilo mōñā ko jej kaddōki ej laplok jen joñan en jej kōtmene ilo United States ak Europe.



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3. The good news is that less radioactive cesium is found in the garden vegetables and fruits compared with traditional tree foods such as coconut and Pandanus.

Enaan eo emman in ej kin an driklok radioactive cesium ilo mōñā in jikin kallip eo jen mōñā ko kijed makmake einwōt ni im bōb.

4. This work shows people who eat more garden vegetables and fruits rather than traditional foods such as coconut will not only improve their general health but lower the amount of radiation getting into their bodies.

Jerbal in ej kwalok ke armij ro elap lok aer mōñā bejtabōl ko im leen kein ikkan ko jen jikin kallip eo im jab mōñā jen mōñā ko kijed make einwōt leen ni ko, wāwen in enaj kōmman bwe en emmanlok aer mour im kadriklok joñan radiation ej dreloñe ānbwinier.



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5. All types of foods grown on Utrōk are safe to eat (*based on limits set by many countries around the world on the amount of radiation allowed in food*).

Aolep mōñā rej katōki ion aeloñ in Utrōk emman ñan mōñā (bedbed wōt iloan joñak in radiation eo emōj an elōñ aelōñ ko ilo lalin karōke ke remaroñ bed ilo mōñā).





# Executive Summary : Prospects for Expanding the Copra Industry in the Marshall Island

## Ilo Tu Kadu In: Reimaanlok ko ñan Kōlaplok Jeramman in Waini ilo Majōl In

(abbreviated and simplified to aid understanding) (Kōkadudu im kapidodoik ñan jibañ kōmeleliki)

1. History has shown that the nuclear affected atolls of Bikini, Enewetak and Rongelap do not enjoy the same local commodity benefits as other atolls in being able to sell their copra.

Emōj ad jela jen iien ko rej motlok ke aelōñ ko ewōr radiation ie einwōt Bikini, Enewetak, im Ronglap rejjab bōk jeraman ko jen wia kake waini jen aelōñ ko jet.

2. New data shows that the amount of radioactive cesium in copra for many coconut producing islands on nuclear affected atolls now falls below food safety limits used for setting restrictions on international trade.

Data ko rekāāl rej kalikar ke joñan radioactive cesium ilo waini jen aelōñ ko reloñ rej kōmman waini jen āne ko ewōr radiation ie emōj aer wōtlok iumin joñak ko ñan kōjbarok mōñā ñan kōmman bōbrae ko ñan leto letak mweiuk belakin lalin.



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3. More importantly, the oil that is pressed from copra has no measurable radioactive cesium, with almost all the radiation being trapped in the leftover meal cake.

Men eo elap lok an aurōk ej oil eo rej meiki im ej walok jen waini ejelok radioactive cesium bwe emōj an drābdreb wōt ilo bwein waini eo.

4. These data support a call for a re-evaluation of the restrictions applied to the sale of copra from nuclear-affected atolls, especially for selected residence islands of Enewetak and Rongelap. Such efforts would greatly benefit the income earning potential of these communities.

Wāwen in ej kōmman bwe jen maroñ bar kajitùkini ta unin ad jab maroñ wia kake waini jen āne ko ewōr radiation ie , elaptata ñan āne ko ewōr armij ie ilo Enewetak im Ronglap. Kōtōbar in enaj kanojin jibañ kadreloñ jeen ko ñan jukjukin bed kein.



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5. Coconut oil from Bikini and the coconut producing northern islands of Enewetak could also be considered a sellable commodity given that the production oil largely remains free of radioactive cesium.

Oil in waini jen Bikini im ijoko elap waini ie jen āne ko turear in Enewetak remaroñ in kōjērbal waini einwōt juōn men eo remaroñ wiakake einwōt ke oil eo emōj kwalok jeni ejelok radioactive cesium ie.



# Resource Potential of Copra from the Marshall Islands

Jeramman Ko Remaroñ Walok Jen Majōl ilo Waini

